

10/549302

JC05 Rec'd PCT/PTO 15 SEP 2005

SEQUENCE LISTING

<110> Wyeth Holdings Corporation

<120> MUTANT CHOLERA HOLOTOXIN AS AN ADJUVANT AND AN ANTIGEN CARRIER
PROTEIN

<130> AM100485

<160> 8

<170> PatentIn version 3.2

<210> 1

<211> 720

<212> DNA

<213> Vibrio cholerae

<400> 1

```

aatgatgata agttatatcg ggcagattct agacctctg atgaaataaa gcagtcaggt      60
ggctcttatgc caagaggaca gagtcactac tttgaccgag gtactcaaat gaatatcaac    120
ctttatgatac atgcaagagg aactcagacg ggatttggtta ggcacgatga tggatatggt    180
tccacctcaa ttagtttgag aagtgccac ttagtgggtc aaactatatt gtctgggtcat    240
tctacttatt atatatatgt tatagccact gcaccaaca tgtttaacgt taatgatgta    300
ttagggggcat acagtcctca tccagatgaa caagaagttt ctgctttagg tgggattcca    360
tactcccaaa tatatggatg gtatcgagtt cattttgggg tgcttgatga acaattacat    420
cgtaataggg gctacagaga tagatattac agtaacttag atattgctcc agcagcagat    480
ggttatggat tggcaggttt ccctccggag catagagctt ggagggaaga gccgtggatt    540
catcatgcac cgccggggtg tgggaatgct ccaagatcat cgatgagtaa tacttgcgat    600
gaaaaaaccc aaagtctagg tgtaaaattc cttgacgaat accaatctaa agttaaaga    660
caaatatattt caggctatca atctgatatt gatacacata atagaattaa ggatgaatta    720

```

<210> 2

<211> 240

<212> PRT

<213> Vibrio cholerae

<400> 2

```

Asn Asp Asp Lys Leu Tyr Arg Ala Asp Ser Arg Pro Pro Asp Glu Ile
1           5           10           15

```

```

Lys Gln Ser Gly Gly Leu Met Pro Arg Gly Gln Ser Glu Tyr Phe Asp
          20           25           30

```

```

Arg Gly Thr Gln Met Asn Ile Asn Leu Tyr Asp His Ala Arg Gly Thr
          35           40           45

```

Gln Thr Gly Phe Val Arg His Asp Asp Gly Tyr Val Ser Thr Ser Ile
50 55 60

Ser Leu Arg Ser Ala His Leu Val Gly Gln Thr Ile Leu Ser Gly His
65 70 75 80

Ser Thr Tyr Tyr Ile Tyr Val Ile Ala Thr Ala Pro Asn Met Phe Asn
85 90 95

Val Asn Asp Val Leu Gly Ala Tyr Ser Pro His Pro Asp Glu Gln Glu
100 105 110

Val Ser Ala Leu Gly Gly Ile Pro Tyr Ser Gln Ile Tyr Gly Trp Tyr
115 120 125

Arg Val His Phe Gly Val Leu Asp Glu Gln Leu His Arg Asn Arg Gly
130 135 140

Tyr Arg Asp Arg Tyr Tyr Ser Asn Leu Asp Ile Ala Pro Ala Ala Asp
145 150 155 160

Gly Tyr Gly Leu Ala Gly Phe Pro Pro Glu His Arg Ala Trp Arg Glu
165 170 175

Glu Pro Trp Ile His His Ala Pro Pro Gly Cys Gly Asn Ala Pro Arg
180 185 190

Ser Ser Met Ser Asn Thr Cys Asp Glu Lys Thr Gln Ser Leu Gly Val
195 200 205

Lys Phe Leu Asp Glu Tyr Gln Ser Lys Val Lys Arg Gln Ile Phe Ser
210 215 220

Gly Tyr Gln Ser Asp Ile Asp Thr His Asn Arg Ile Lys Asp Glu Leu
225 230 235 240

<210> 3
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Synthetic oligo

<400> 3
aagttatata aggcagattc

<210> 4
 <211> 18
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic nucleotide sequence

 <400> 4
 cagattctaa acctcctg 18

<210> 5
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> synthetic oligo

<220>
 <221> misc_feature
 <222> (9)..(9)
 <223> nucleotide variation

 <400> 5
 gacagagtna gtactttgac cg 22

<210> 6
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> synthetic oligo

<220>
 <221> misc_feature
 <222> (8)..(8)
 <223> nucleotide variation

<220>
 <221> misc_feature
 <222> (14)..(14)
 <223> nucleotide variation

<400> 6
 cagatganca agangtttct gc 22

<210> 7
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> synthetic oligo

<220>
<221> misc_feature
<222> (8)..(8)
<223> nucleotide variation

<220>
<221> misc_feature
<222> (14)..(14)
<223> nucleotide variation

<400> 7
cagatganca agangtttct gc

22

<210> 8
<211> 7
<212> PRT
<213> Homo sapiens

<400> 8

Asp Ala Glu Phe Arg His Asp
1 5